

1955-1984 Eight disposal landfills constructed on site and used to dispose of explosives derived wastes from Site 300 Firing Tables



1955 University of California begins operating Site 300 as a remote, explosives testing facility for the Atomic Energy Commission (AEC) (photo from early 1990s)



Historic Summary of the Environmental Restoration Activities at Lawrence Livermore National Laboratory Site 300

Environmental Restoration Division, Lawrence Livermore National Laboratory
P.O. Box 808, L-544, Livermore, CA 94551, USA – Phone: (925) 422-5479

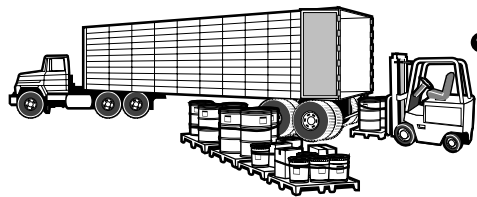


Work performed under the auspices of the U. S. Department of Energy by
Lawrence Livermore National Laboratory under Contract W-7405-Eng-48.

UCRL-MI-135903

Major Accomplishments

- 1 Pre-CERCLA activities conducted to reduce potential worker risk and further releases to the environment.
- 2 Capping of Pits 1 and 7 prevented on-site exposure, minimized worker risk, and enabled RCRA closure of these waste units.
- 3 Site-wide model enhanced by integrating geologic, hydraulic, geophysical, and chemical data to develop hydrogeologic units and complete the comprehensive analysis of plume transport and potential risk to human health and the environment.
- 4 Ground water treatment in the Eastern GSA substantially reduced off-site TCE plume, eliminating threat to nearby off-site drinking water wells.
- 5 Pit 6 cap construction successfully isolated contaminants and removed driving force for TCE plume migration—regulators agree to natural attenuation remedy for the plume.



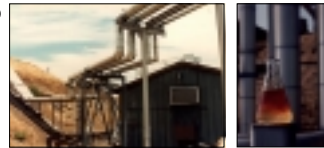
- 1 1963-1972 Disposed of waste shipments from the Livermore Site and Lawrence Berkeley Laboratory at landfill pit 6; Exhumed 57 drums of mercury and depleted uranium waste from pit 6; materials shipped off site for disposal



1985 Constructed double-lined surface evaporation impoundments for high explosives process water



1983-1985 Closed Site 300 dry wells and unlined waste-water discharge lagoons (shown)



1983 Discovered free-product Trichloroethylene (TCE) at Building 834; contaminated soil excavated and remediated via aeration



1988 Disposed all firing table gravels from Site 300 firing tables in Pits 1 and 7

- 1 1988 Began pilot soil vapor extraction at Building 834

- 1 1986 Began pilot ground water extraction and aeration (air sparging) treatment at Building 834

- 1 1986 Decommissioned 2 TCE transfer stations

1985



1992 Signed CERCLA (Superfund) Federal Facility Agreement



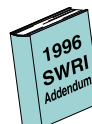
1994 Initiated soil vapor extraction at the Central GSA



1995 Completed Interim CERCLA (Superfund) Record of Decision (ROD) for the Building 834 Area



1995-1996 Implemented CERCLA (Superfund) Re-Engineering process at Site 300 to reduce regulatory documents, and expedite cleanup



1996 Completed SWRI Addendum Report for the Building 850/Pits 3&5 Area

1990

- 1 1990 Capped tritium and uranium contaminated firing table sand

1990 Site 300 added to the CERCLA/Superfund National Priorities List

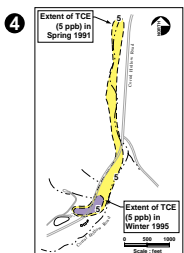
1991 Demonstration of electron accelerator to destroy VOCs in vapor at Building 834

1991 Bioremediation of 100 yd³ of diesel-contaminated soil at the Central GSA

- 1 1988-1990 Sealed 7 inactive water-supply wells to prevent aquifer cross-communication and contaminant migration

1989 Creation of DOE's Environmental Management Program

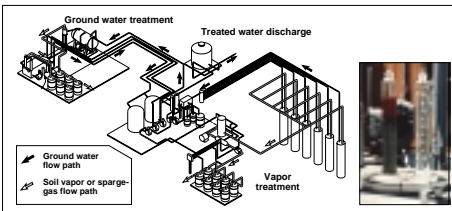
1995



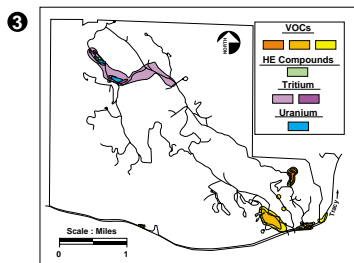
1992-1993 Completed RCRA cap on mixed waste landfill Pits 1 and 7



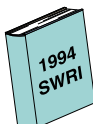
1992 Completed Engineering Evaluation and Cost Analysis (EECA) for Central GSA
1993 Initiated ground water extraction and treatment at Central GSA



1995 Initiated treatment of free-product TCE at Building 834 using ground water and soil vapor extraction



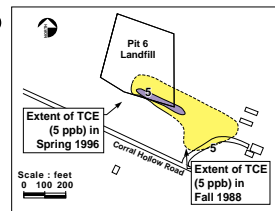
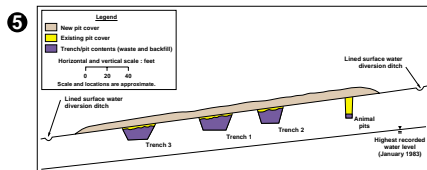
1994 Completed Site 300 Site Wide Remedial Investigation (SWRI) Report



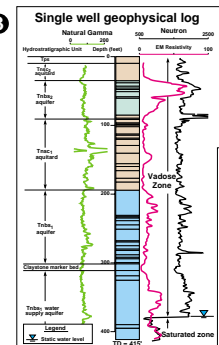
1997 Completed GSA (CERCLA/Superfund) Record of Decision



1997 Completed GSA Remedial Design report. Liquid-phase GAC system installed at Eastern GSA; former air-sparging system decommissioned



1988-1996 Natural attenuation successfully reduces Pit 6 TCE ground water plume



1989-1991 Enhanced borehole geophysics enables accurate hydrogeologic interpretation at Site 300
1992 New Site 300 conceptual model developed using hydrogeologic units

